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Factors Influencing the Uptake of Mammography for Breast Cancer Screening among Female Patients at Thika Level 5 Hospital, Kiambu County

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Abstract:

Background: Scholars have demonstrated a worldwide increase in the cases of breast cancer among women, yet many women in Kenya have not gone for breast cancer screening. Therefore, there is need to understand the patient related reasons behind the extremely low utilization of mammography as a screening mechanism for breast cancer in Kenya, yet mammography remains the most readily available gold standard imaging tool in the detection of breast cancer.

Goal of the study: To investigate the factors influencing uptake of mammography for breast cancer screening among female patients age 40 years and above at Thika level 5 Hospital. Specifically determine the influence of the female patients' perception on uptake of mammography for breast cancer screening, determine the influence of the female patients' knowledge on the uptake of mammography for breast cancer screening, and lastly determine the cues to action on utilization of mammography screening among female patients.

Method: Self-administered questionnaires based on the constructs of the Health Belief Model that formed the basis of the study were distributed to 104 randomly selected patients and 75 of them returned the duly filled questionnaires.

Results: The majority of the respondents (56.0%) had never heard of mammography while 44.0% of the respondents reported on the affirmative. A combined 49.3% of the respondents felt that they were susceptible to breast cancer while only a paltry 9.3% did not feel susceptible. About the possibility of getting breast cancer after undergoing a mammography test, 48 % felt that they were likely to get the disease if they underwent screening. The majority (64%) of the respondents were married at the time of interview. Only 6.7% felt the need to do mammography as recommended while the majority (82.7%) of the respondents did not feel confident to undergo mammography as recommended. The majority (57.3%) strongly agreed that mammography was very painful. A significant number (65.3%) of the respondents perceived that mammography and breast cancer would endanger their relationship significantly while only 13.3% of the respondents disagreed. Findings showed that 61.3% of the respondents believed that mammography would help them find breast lumps. Significant majority of the respondents (72.0%) strongly agreed that mammography was expensive while 14.7% disagreed.

Conclusion: The study revealed that low self-efficacy and perceived barriers plus relative lack of awareness were the main factors hindering the uptake of mammography as a screening tool.

Keywords: Uptake of mammography in Kenya, breast cancer screening in Kenya

1. Background of the Study

The World Health Organization statistics indicate that breast cancer is one of the leading causes of cancer deaths among women worldwide. Worldwide, more than 1.7million women are annually diagnosed with breast cancer (American Cancer Society, 2014) and over 508,000 women died in 2011 due to breast cancer (Global Health Estimates, 2013).

Globan (2008) states that the incidence rate in east Africa is 19.3 per 100,000 with an overall of 40 per 100,000 in the whole Africa but the rate of mortality is high compared to developed countries.

In Kenya, breast cancer is the top leading killer disease in women aged 35-55years with one in nine women in the country suffering from the disease surviving and those affected are relatively younger than in developed countries (Nairobi Cancer Registry, 2011).

According to Nairobi Cancer report, 51% of the women with breast cancer are aged below 50 years. Late diagnosis is the main reason for high mortality rate with an estimate of 80-90% of breast cancer patients going to the hospital when the cancer is in advanced stage (WHO 2013).

However, utilization of mammography screening remains extremely low in Kenya and the Kenya Breast Health program (2011), states that 95% of women in Kenya have never had a mammography screening. The breast cancer in Kenya-Cancer Free woman Organization, states that 71% of women interviewed have never heard of the word “mammogram” and only 7% have ever done a mammogram.

Indications for mammography include screening of asymptomatic women, diagnostic assessment, and follow-up for symptomatic women, and monitoring in high-risk groups. Regular mammography screenings have the potential to reduce mortality rates by as much as 34% (Glanz, Karen, Bishop, & Donald, 2010).

The barrier to mammography screening most commonly reported was lack of physician referral and the Kenyan government is yet to firmly prioritize and establish mammographic screening in breast cancer detection (Musimbi, 2008), since only one out of the sixty health facilities in Kiambu county, has a mammogram unit. However, many factors affect the utility of mammography for breast screening among female patients above 35 years of.

1.1. Problem Statement

Breast cancer is one of the most prevalent cancers affecting women in both developed and developing countries (WHO 2011). In Kenya, breast cancer incidence is highest among females between age's 35-55years, yet there is scanty evidence to understand the low uptake of mammography as a screening diagnostic tool (Nairobi cancer registry 2011). According to Apfelstaedt (2006), 80% - 90% of women who were done mammography presented at advanced stages of the disease when the treatment cost is enormous and survival prognosis is extremely low.

Despite the efficacy of screening in reducing deaths from breast cancer, the utilization of mammography screening among women in Kenya remains extremely low. The Kenya breast health program (2011) found that 95% of women in Kenya have never performed mammography due ignorance, poor attitude, poverty, and fear (Dr. Lisa Baumbach, 2012). In a survey conducted by the Kenya-Cancer free women Organization (2013), 71% of women interviewed in Kiambu had never heard of the word “mammogram”. The mammogram unit installed at Thika level 5 Hospital in 2012 serves so far only 15 women on a monthly basis between the periods 2012-2014. Out of the 15 cases, six patients had breast cancer at its third or fourth stage (Thika Level 5 Hospital Records, 2014). Mammography for breast cancers screening advertising campaigns tends to increase breast-screening uptake by 2-13 %.(Naidoo and Wills, 2009).

For successful campaigns to be mounted, a clear understanding of the factors likely to promote or hinder uptake of mammography as a screening tool in Kenya is key in enhancing theory driven approaches to facilitate effective health message design.

1.2. General Objective

To investigate the factors influencing uptake of mammography for breast cancer screening among female patients above 40 years of age at the Thika level 5 Hospital.

1.3. Specific Objective

Determine the influence of patients' perception on uptake of mammography for breast cancer screening among female patients.

Determine the influence of patients' knowledge on the uptake of mammography for breast cancer screening among the female patients.

Determine the cues to action on utilization of mammography screening among female patients

2. Materials and Methods

2.1. Study Design

This study was a quantitative cross sectional survey based on a health belief model self-administered questionnaire that involved 138 women aged above 35 years old purposefully selected from the target population.

2.1. Sample Size Determination

This was determined using the formula by Fisher's *et al.* (1998).

$$n = \frac{Z^2 pqD}{d^2}$$

Where; n = the desired sample size (if the target population is greater than 10000; Z = the standard normal deviate 1.96 at 95% confidence interval

P = estimated screening by use of mammography was 0.1

q = 1 - p = 0.90

d = level of statistical significance set at 0.05; D = design effect = 1 and therefore;

$$n = \frac{1.96 \times 0.1 \times 0.90}{(0.05)^2} \\ = 138$$

2.3. Data Management

Primary data was collected using Likert type of questionnaire which was well explained to the participants and education provided to them on how to fill the questionnaire. The scores ranged from 5 to 1 where 5 is strongly agree and 1 strongly disagree and hence the scores were later be used to tabulate the results. Data coding and analysis using the SPSS/PC+ Version 12.0 program then descriptive statistics for the continuous and categorical variables obtained. Level of significance was fixed at 0.05 ($p=0.05$) with a 95% confidence interval.

2.4. Ethical Considerations

The researchers sought approval of the study protocol by the Scientific Steering Committees (SSC) of the College of Health Sciences (JKUAT) and from the Thika Level 5 Hospital Administration and County Administration. Study respondents provided informed consent before administration of the questionnaires. All data stored in password-protected computers without links to identifiers.

3. Results

3.1. Socio-Demographic Data of the Respondents

Data from 75 out of 104 respondents returned the duly completed questionnaires giving a response rate of 72.1%. Majority of respondents were aged between 35-54 years at 80% as shown in Table 1.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	35-44 years	31	41.3	41.3	41.3
	45-54 years	29	38.7	38.7	80.0
	55-64 years	12	16.0	16.0	96.0
	65 years and above	3	4.0	4.0	100.0
	Total	75	100.0	100.0	

Table 1: Age Category of the Respondents

The majority (64%) of the respondents were married at the time of interview (Table 2).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	11	14.7	14.7	14.7
	Married	48	64.0	64.0	78.7
	Divorced	10	13.3	13.3	92.0
	Widowed	6	8.0	8.0	100.0
	Total	75	100.0	100.0	

Table 2: Marital status of the respondents

The study further revealed that 42.7% of the respondents' educational level was secondary school while only 9.3% reported to be having no education background as shown in figure 1.

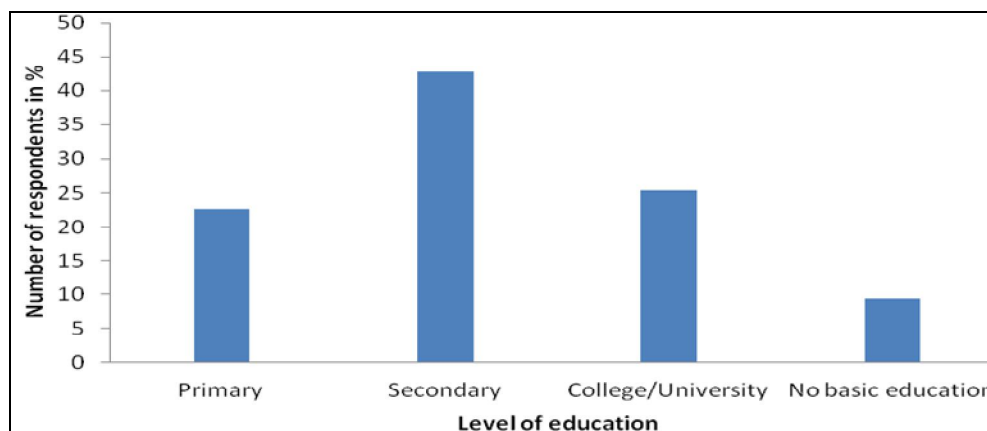


Figure 1: Respondents' Level of Education

The study found that majority of the respondents (52.0%) were low-income earners while the rest (48.0%) were middle-income earners (Figure 2).

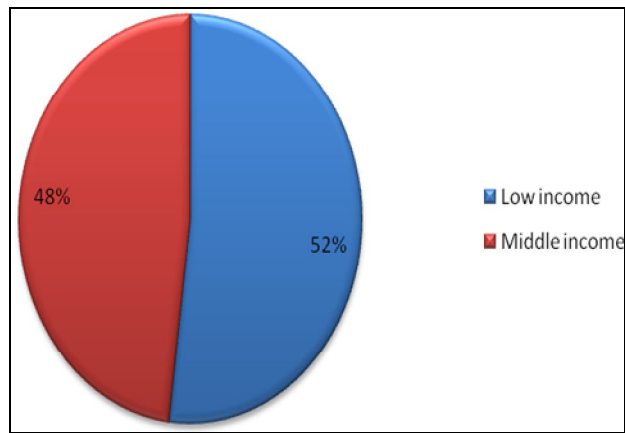


Figure 2: Income Bracket

From the findings, majority of the respondents (56.0%) had never heard of mammography while 44.0% of the respondents reported on the affirmative (Figure 3). It was further found that 20.0% those who respondent yes had heard it from a medical practitioner whereas the remaining responded as follows 4.0% all sources, newspaper and medical practitioner at 5.3%, internet and medical practitioner at 9.3% and radio, television and newspaper at 1.3% respectively (Table 3).

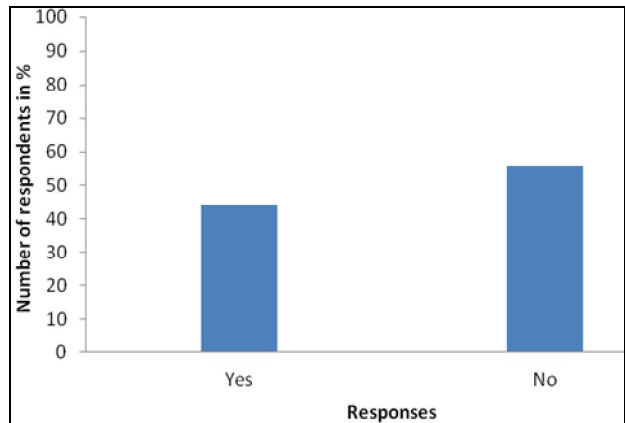


Figure 3: Ever Heard of Mammography

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Radio	1	1.3	3.1	3.1
	Television	1	1.3	3.1	6.3
	Newspaper	1	1.3	3.1	9.4
	Medical Practitioner	15	20.0	46.9	56.3
	All	3	4.0	9.4	65.6
	Newspaper and Medical Practitioner	4	5.3	12.5	78.1
	Internet and Medical Practitioner	7	9.3	21.9	100.0
	Total	32	42.7	100.0	
Missing	System	43	57.3		
Total		75	100.0		

Table 3: Source of Information about Breast Cancer Screening

3.2. Perceived Susceptibility

A combined 49.3% of the respondents felt that they were susceptible to breast cancer while only a paltry 9.3% did feel susceptible (Table 4). About the possibility of getting breast cancer after undergoing a mammography test, 48 % felt that they were likely to get the disease if they underwent screening (Figure 4).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	1	1.3	1.4	1.4
	Disagree	6	8.0	8.2	9.6
	Neither agree nor disagree	29	38.7	39.7	49.3
	Agree	28	37.3	38.4	87.7
	Strongly Agree	9	12.0	12.3	100.0
Total		73	97.3	100.0	
Missing	System	2	2.7		
Total		75	100.0		

Table 4: High chances of getting Breast Cancer

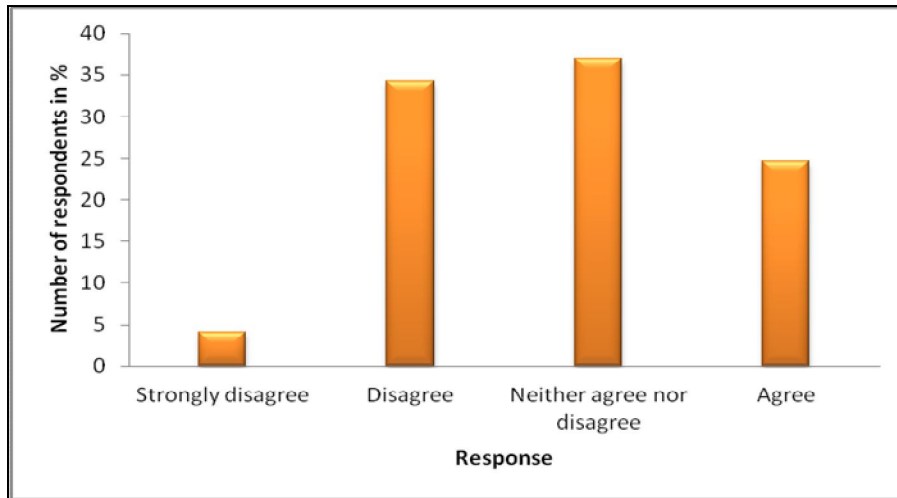


Figure 4: Possibility of getting Breast Cancer after Performing Mammogram

3.3. Perceived Severity

Concerning perceived severity by the respondents, the study found that 30.7% agreed that mammography for breast cancer screening scared them and only 2.7% strongly disagreed (Table 5).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	2	2.7	2.7	2.7
	Disagree	18	24.0	24.7	27.4
	Neither agree nor disagree	15	20.0	20.5	47.9
	Agree	23	30.7	31.5	79.5
	Strongly Agree	15	20.0	20.5	100.0
Total		73	97.3	100.0	
Missing	System	2	2.7		
Total		75	100.0		

Table 5: Scared by Mammography Screening for Breast Cancer

The study further revealed that 68% said that mammography was painful and uncomfortable and this could hinder routine screening for them but only a paltry 1.3% strongly disagreed about the pain issue (Table 6).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	1	1.3	1.4	1.4
	Disagree	10	13.3	13.7	15.1
	Neither agree nor disagree	11	14.7	15.1	30.1
	Agree	29	38.7	39.7	69.9
	Strongly Agree	22	29.3	30.1	100.0
Total		73	97.3	100.0	
Missing	System	2	2.7		
Total		75	100.0		

Table 6: mammography is painful and uncomfortable

A significant number (65.3%) of the respondents perceived that mammography and breast cancer would endanger their relationship significantly while only 13.3% of the respondents disagreed (Table 7).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	10	13.3	13.7	13.7
	Neither agree nor disagree	14	18.7	19.2	32.9
	Agree	22	29.3	30.1	63.0
	Strongly Agree	27	36.0	37.0	100.0
	Total	73	97.3	100.0	
Missing	System	2	2.7		
Total		75	100.0		

Table 7: Mammography and breast cancer would endanger my relationship significantly

Majority of the respondents (54.0%) according to the study strongly agreed that breast cancer would endanger their financial security whereas 34.7% agreed and a paltry 4.0%, 1.3% and 1.3% neither agreed nor disagreed, disagreed and strongly disagreed respectively (Table 8).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	1	1.3	1.4	1.4
	Disagree	1	1.3	1.4	2.8
	Neither agree nor disagree	3	4.0	4.2	6.9
	Agree	26	34.7	36.1	43.1
	Strongly Agree	41	54.7	56.9	100.0
Total		72	96.0	100.0	
Missing	System	3	4.0		
Total		75	100.0		

Table 8: breast cancer endangered financial security

3.4. Perceived Benefits

A significant number of the respondents (57.3%) neither agreed nor disagreed that regular mammography would prevent future problems whereas 22.7% strongly agreed and 16.0% agreed with the same (Table 9).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neither agree nor disagree	43	57.3	59.7	59.7
	Agree	12	16.0	16.7	76.4
	Strongly Agree	17	22.7	23.6	100.0
	Total	72	96.0	100.0	
Missing	System	3	4.0		
Total		75	100.0		

Table 9: Regular Mammography Prevents Future Problems

Findings showed that 61.3% of the respondents believed that mammography would help them find breast lumps while only 1.3% strongly disagreed (Table 10).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	1	1.3	1.4	1.4
	Neither agree nor disagree	25	33.3	34.7	36.1
	Agree	31	41.3	43.1	79.2
	Strongly Agree	15	20.0	20.8	100.0
	Total	72	96.0	100.0	
Missing	System	3	4.0		
Total		75	100.0		

Table 10: Mammogram can help Find Breast Lumps

42.7% and 25.3% disagreed and strongly disagreed respectively that mammogram screening would be embarrassing to them whereas 4.0% neither agreed nor disagreed, 10.7% strongly agreed and 1.3% strongly agreed (Table 11).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	19	25.3	30.2	30.2
	Disagree	32	42.7	50.8	81.0
	Neither agree nor disagree	3	4.0	4.8	85.7
	Agree	8	10.7	12.7	98.4
	Strongly Agree	1	1.3	1.6	100.0
	Total	63	84.0	100.0	
Missing	System	12	16.0		
Total		75	100.0		

Table 11: Mammogram Screening for Breast Cancer is Embarrassing

3.5. Perceived Barriers

The study found that majority (57.3%) strongly agreed that mammography was very painful while 13.3% agreed with the same perception. It was further shown that 13.3% disagreed while 9.3% strongly disagreed and only 2.7% neither agreed nor disagreed (Table 12).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	7	9.3	9.7	9.7
	Disagree	10	13.3	13.9	23.6
	Neither agree nor disagree	2	2.7	2.8	26.4
	Agree	10	13.3	13.9	40.3
	Strongly Agree	43	57.3	59.7	100.0
	Total	72	96.0	100.0	
Missing	System	3	4.0		
Total		75	100.0		

Table 12: Mammography is Very Painful

The study findings showed that 37.3% strongly agreed that mammography was time consuming while 26.7% agreed, 20.0% disagreed, 6.7% strongly disagreed and 5.3% neither agreed nor disagreed (Table 13).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	5	6.7	6.9	6.9
	Disagree	15	20.0	20.8	27.8
	Neither agree nor disagree	4	5.3	5.6	33.3
	Agree	20	26.7	27.8	61.1
	Strongly Agree	28	37.3	38.9	100.0
	Total	72	96.0	100.0	
Missing	System	3	4.0		
Total		75	100.0		

Table 13: Mammography is time consuming

It was found that 49.3% strongly disagreed that culture does not allow them to practice mammography whereas 29.3% disagreed with the same. 9.3% strongly agreed that culture hinders them from practicing mammography while 8.0% of the respondents neither agreed nor disagreed (Table 14).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	37	49.3	51.4	51.4
	Disagree	22	29.3	30.6	81.9
	Neither agree nor disagree	6	8.0	8.3	90.3
	Strongly Agree	7	9.3	9.7	100.0
	Total	72	96.0	100.0	
Missing	System	3	4.0		
Total		75	100.0		

Table 14: culture does not allow the practice of mammography

The study revealed that 84.0% of respondents strongly agreed that the facility offering mammography was far away from their place of stay. About 10.7% disagreed while 1.3% only agreed that the facility was far (Table 15).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Disagree	8	10.7	11.1	11.1
	Agree	1	1.3	1.4	12.5
	Strongly Agree	63	84.0	87.5	100.0
	Total	72	96.0	100.0	
Missing	System	3	4.0		
Total		75	100.0		

Table 15: facility offering mammography is far away

A significant majority of the respondents (72.0%) strongly agreed that mammography was expensive while 14.7% disagreed. The rest of the respondents 5.3% neither agreed nor disagreed whereas only 1.3% strongly disagreed and agreed respectively (Table 16).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	1	1.3	1.4	1.4
	Disagree	11	14.7	15.5	16.9
	Neither agree nor disagree	4	5.3	5.6	22.5
	Agree	1	1.3	1.4	23.9
	Strongly Agree	54	72.0	76.1	100.0
	Total	71	94.7	100.0	
Missing	System	4	5.3		
Total		75	100.0		

Table 16: Mammography is Expensive to Perform

The study findings also found that 46.7% of the respondents strongly agreed that they lack proper knowledge on mammography while 26.7% agreed on the same. 8.0% strongly disagreed and disagreed respectively while 6.7% neither agreed nor disagreed (Table 17).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	6	8.0	8.3	8.3
	Disagree	6	8.0	8.3	16.7
	Neither agree nor disagree	5	6.7	6.9	23.6
	Agree	20	26.7	27.8	51.4
	Strongly Agree	35	46.7	48.6	100.0
	Total	72	96.0	100.0	
Missing	System	3	4.0		
Total		75	100.0		

Table 17: No Proper Knowledge on Performing Mammography

3.6. Cues to Action

The study findings showed that 44.0% of the respondents strongly disagreed that they got proper education about mammography while 26.7% disagreed. The smaller percentage (5.3%) agreed that prior education on mammography motivated them to undergo routine screening (Table 18).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	33	44.0	45.2	45.2
	Disagree	20	26.7	27.4	72.6
	Neither agree nor disagree	8	10.7	11.0	83.6
	Agree	4	5.3	5.5	89.0
	Strongly Agree	8	10.7	11.0	100.0
	Total	73	97.3	100.0	
Missing	System	2	2.7		
Total		75	100.0		

Table 18: Always got Proper Education about Mammography Screening

Majority of the respondents (84.9%) disagreed that they frequently performed mammography as recommended (Table 19).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	44	58.7	60.3	60.3
	Disagree	18	24.0	24.7	84.9
	Neither agree nor disagree	3	4.0	4.1	89.0
	Agree	3	4.0	4.1	93.2
	Strongly Agree	5	6.7	6.8	100.0
	Total	73	97.3	100.0	
Missing	System	2	2.7		
Total		75	100.0		

Table 19: Frequently Perform Mammography as Recommended

The study found that a significant number of the respondents (82.2%) disagreed that they had a recommendation for periodic mammography examination in addition to visits for a specific problem (Table 20).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	46	61.3	63.0	63.0
	Disagree	14	18.7	19.2	82.2
	Neither agree nor disagree	3	4.0	4.1	86.3
	Agree	6	8.0	8.2	94.5
	Strongly Agree	4	5.3	5.5	100.0
	Total	73	97.3	100.0	
Missing	System	2	2.7		
Total		75	100.0		

Table 20: Has Recommendation for Periodic Mammography Examination in Addition to Visits for a Specific Problem

3.7. Self Efficacy

The majority (85.3%) disagreed that they had performed mammography as recommended whereas only 9.3% agreed that they performed mammography as recommended (Table 21).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	55	73.3	75.3	75.3
	Disagree	9	12.0	12.3	87.7
	Neither agree nor disagree	2	2.7	2.7	90.4
	Agree	3	4.0	4.1	94.5
	Strongly Agree	4	5.3	5.5	100.0
	Total	73	97.3	100.0	
Missing	System	2	2.7		
Total		75	100.0		

Table 21: Performed Mammography as Recommended

Majority of the respondents (82.2%) disagreed that they had performed mammography in the past one year (Table 22).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	54	72.0	74.0	74.0
	Disagree	6	8.0	8.2	82.2
	Neither agree nor disagree	1	1.3	1.4	83.6
	Agree	2	2.7	2.7	86.3
	Strongly Agree	10	13.3	13.7	100.0
	Total	73	97.3	100.0	
Missing	System	2	2.7		
Total		75	100.0		

Table 22: Performed Mammogram in the Past One Year

The study further showed that majority of the respondents (73.3%) strongly disagreed that they had performed mammography in the past 2 years while 17.3% strongly agreed, 5.3% disagreed while 1.3% of the respondents agreed (Table 23).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	55	73.3	75.3	75.3
	Disagree	4	5.3	5.5	80.8
	Agree	1	1.3	1.4	82.2
	Strongly Agree	13	17.3	17.8	100.0
	Total	73	97.3	100.0	
Missing	System	2	2.7		
Total		75	100.0		

Table 23: Performed Mammogram in the Past 2 Years

The findings showed that most of the respondents (64.0%) strongly disagreed that they were aware of recommended guidelines regarding mammography while 6.7% disagreed and only 4.0% agreed that they were aware of recommended guidelines (Table 24).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	48	64.0	65.8	65.8
	Disagree	5	6.7	6.8	72.6
	Neither agree nor disagree	11	14.7	15.1	87.7
	Agree	3	4.0	4.1	91.8
	Strongly Agree	6	8.0	8.2	100.0
	Total	73	97.3	100.0	
Missing	System	2	2.7		
Total		75	100.0		

Table 24: Aware of Recommended Mammography Guidelines

4. Discussion and Recommendations

4.1. Perceived Susceptibility

About the possibility of getting breast cancer after undergoing a mammography test, only 25.3% agreed, while 48% disagreed. This somewhat contradicts the findings by Karen, Rimer, and Viswanath (2008) who found that Individuals who perceive a high risk to a particular health problem are more likely to engage in behaviors to decrease their risk.

4.2. Perceived Severity

According to the current study, 30.7% agreed that mammography for breast cancer screening scared them whereas only 26.7% disagreed. This would in turn lead to the need for them to undergo mammography as per the findings from Karen, Rimer and Viswanath (2008) who found that Swedish women who worried most about developing breast cancer were most likely to obtain a mammogram. The study revealed that a significant number (65.3%) of the respondents perceived that mammography and breast cancer would endanger their relationship significantly. Majority of the respondents (88.7%) agreed that breast cancer would endanger their financial security whereas 34.7% agreed and a paltry 4.0%, 1.3% and 1.3% neither agreed nor disagreed, disagreed and strongly disagreed respectively. These findings are in agreement with a study by Holm, Frank and Curtin, (1999) who found that among women who participated in mammography screening, perceived seriousness or severity were not significant predictors of mammography behavior.

4.3. Perceived Benefits

A significant number of the respondents (57.3%) neither agreed nor disagreed that regular mammography would prevent future problems whereas 38.7% agreed with the same. Findings showed that 61.3% of the respondents believed that mammography would help them find breast lumps. These findings concur with a study by Holm, Frank, & Curtin, (1999) on 25 African American and 72 Caucasian women age 35 to 84 years who found that women who participated in mammography screening were more likely to perceive greater benefit from the screening.

4.4. Perceived Barriers

The study found that majority (57.3%) strongly agreed that mammography was very painful while 13.3% agreed with the same perception. The majority of the respondents (63%) felt that mammography was time consuming and only 26.7% disagreed. According to Janz et al (2002), perceived barriers to taking action include the perceived inconvenience, expense, danger (e.g side effects of a medical procedure) and discomfort (e.g., pain, emotional upset) involved in engaging in the behavior. The findings therefore concur with the study by Janz. The study revealed that 84.0% of respondents strongly agreed that the facility offering mammography was far

away from their place of stay. This finding agrees with a study by Kash *et al.*, (2002) who revealed that women reporting more barriers to screening (emotional, distress, transportation problems, and physical discomfort from the procedure) had fewer social supports and those with low social desirability had more distress secondary to anxiety. The study by Kash *et al.* (2002) further supports the findings of the current study where a significant majority of the respondents (72.0%) strongly agreed that mammography was expensive while 14.7% disagreed.

4.5. Cues to Action

Only 6.7% felt the need to do mammography as recommended while the majority (82.7%) of the respondents did not see the need to undergo mammography as recommended. However, according to Beaulieu *et al.* (1996) previous mammography was a strongest predictor of adherence to mammography as was the number of prior mammograms that increase the compliance rate.

4.6. Self Efficacy

The study revealed that 73.3% strongly disagreed that they had performed mammography as recommended whereas 12.0% disagreed about the same. The study further showed that majority of the respondents (78.6%) disagreed that they had performed mammography in the past 2 years while 18.6% agreed. These findings are however in contrast to findings by other studies that showed that women went for more mammography screenings per year after encouragement from a physician and family members (MacDowell, Nitz-Weiss, and Short, 2000; Han *et al.*, 2000).

4.7. Recommendations

There is need to conduct further studies in order to come up with health promotion strategies that would capitalize on self efficacy and perceived barriers to breast cancer screening in order to promote the uptake of breast cancer screening.

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